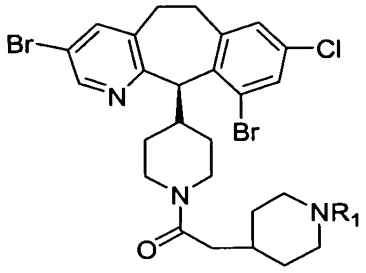
What is claimed.

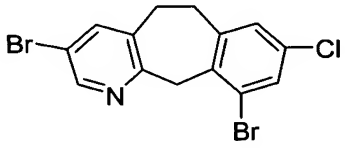
1. An enantioselective process of preparing a compound represented by formula **VI**



VI

wherein R_1 is H or a protecting group;

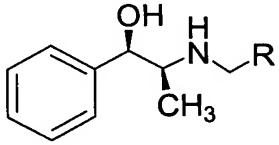
which comprises contacting a compound represented by formula **V**



V

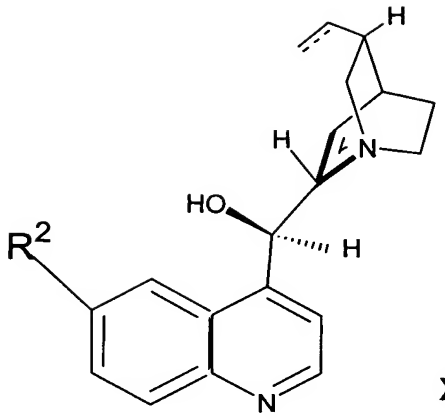
in an inert organic solvent with at least about an equivalent amount of each of:

(i) a chiral amino alcohol represented by the formula **XI**



XI

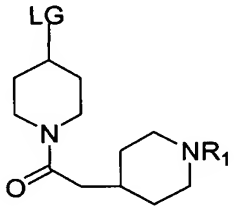
wherein R is an aryl, akylaryl, alkoxylary, arylaryl, heteroarryl, or polycyclic aryl group, or formula **XII**



XII

wherein in formula **XII**, the dotted line represents an optional second bond and wherein R^2 is selected from alkoxy, alkoxyalkyoxy, aryloxy, arylalkoxy, and NR^AR^B, wherein R^A and R^B are independently alkyl or aryl, and R^2 is optionally substituted by one or more alkoxy groups;

(ii) a compound represented by formula **X**



X

wherein LG is a leaving group and R_1 is H or a protecting group; and

(iii) an organic ether or amine additive or mixtures thereof to form a reaction mixture;

then adding to the reaction mixture at least an equivalent amount of a non-nucleophilic strong base in an organic solvent and optionally adding an equivalent amount of water or a C_1 - C_3 alcohol to produce the compound represented by formula **VI**.

2. The process of claim 1 wherein the non-nucleophilic strong base is a lithium base selected from lithium diisopropyl amide, lithium N-butyl-N-phenyl amide, lithium bis(trimethylsilyl)amide, and lithium N-ethyl,N- phenyl amide.

3. The process of claim 1 wherein the organic ether or amine additive is an alkyl ether, an alkylamine, an arylamine or mixtures thereof .

4. The process of claim 1 wherein the organic ether or amine additive is 2-isopropylamine, tetramethylethylenediamine ("TMEDA") or N-ethylaniline, N-phenyl, N-benzylamine or N-phenyl, 1-or 2-naphthyl amine or mixtures thereof

5. The process of claim 1 wherein the reaction is conducted under an inert atmosphere.

6. The process of claim 1 wherein water is added to the reaction mixture comprising compound **V**, the chiral amino alcohol, compound **X**, the organic additive, and the non-nucleophilic strong base.

7. The process of claim 1 which further comprises adding about 0.5 to about 1.2 equivalents of water the reaction mixture comprising about 0.7 to about 1.2 equivalents of each of compound **V**, about 1.0 to about 2.5 equivalents of the chiral amino alcohol, compound **X**, about 1.0 to about 3.0 equivalents of the organic additive, and about 0.9 to about 1.1 equivalents of the non-nucleophilic strong base.

8. The process of claim 7 which further comprises adding about 1.8 to about 2.4 additional equivalents of the non-nucleophilic strong base , in two approximately equal portions, to the resulting reaction mixture formed by the adding water.

9. The process of claim 1 wherein the chiral amino alcohol is quinine or a quinine derivative of formula **XII**.

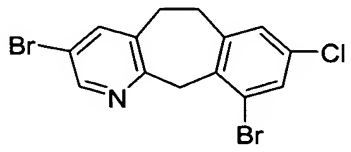
10. The process of claim 1 which further comprises treating the compound of formula **VI** wherein R_1 is a protecting group with sufficient aqueous acid to produce a reaction mixture comprising the compound of formula **VI** wherein R_1 is H, and adding to the reaction mixture at least about an equivalent of a chiral organic acid to form an acid addition salt, and then isolating the acid addition salt and then contacting the resulting isolated acid addition salt with sufficient base in a solvent to form the compound of formula **VI** wherein R_1 is H

11. The process of claim 10 wherein the chiral organic acid is N-*a*-(tert-butoxycarbonyl)-L-asparagine, di-p-toluoyl-L-tartaric acid, N-(tert-butoxy-carbonyl)-L-proline, (S)-(-)-2-hydroxy-3,3-dimethylbutyric acid, N-acetyl-L-phenylalanine or (1R)-(+)-camphanic acid.

12. The process of claim 1 wherein the chiral amino alcohol is quinine.

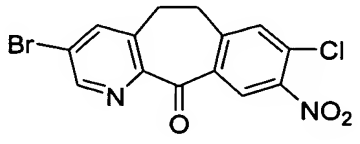
13. The process of claim 1 wherein in compound **X**, LG is mesylate, and R_1 is t-butoxycarbonyl.

14. A process for the preparation of a compound represented by formula **V**



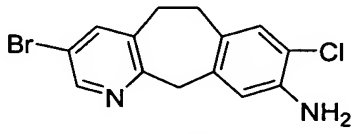
V

which comprises (1) contacting a compound represented by formula **IIA**



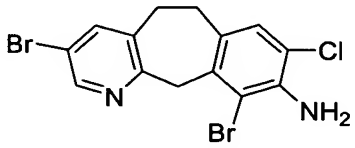
IIA

with at least about an equivalent amount of phosphorous acid in the presence of catalytic amount of an alkali iodide or iodine and hydrobromic acid in water to form a reaction mixture, and then adding to the reaction mixture at least about an equivalent of hypophosphorous acid to form a compound represented by formula **IIIA**



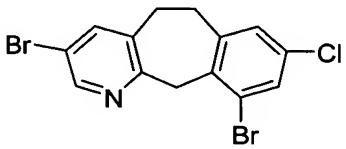
IIIA ;

(2) contacting the resulting compound represented by formula **IIIA** with at least about an equivalent amount of bromine in the presence of an organic acid and a lower alkanol to form a compound represented by formula **IVA**



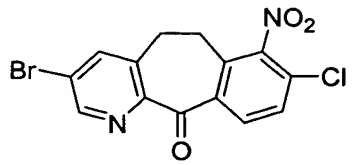
IVA

15. The process of claim 14 which further comprises the step of contracting the compound represented by formula **IVA** with at least about equivalent amount of hypophosphorous acid and the presence of sodium nitrite in a aqueous acidic medium to form the compound represented by formula **V**



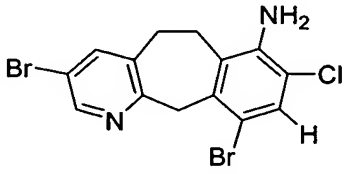
V

16. The process of claim 14 wherein a mixture a compound of **IIA** and a compound represented by formula **IIB:**



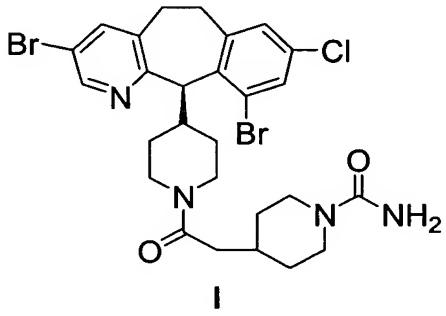
IIB

is present in the contacting step (1) and a compound represented by formula **IVB**



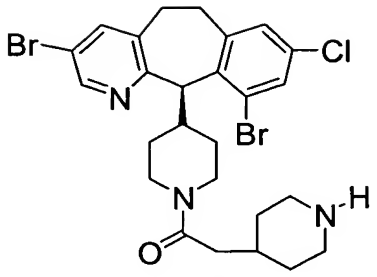
IVB is also formed in step (2)

17. A process for the preparation of a compound represented by formula **I**



I

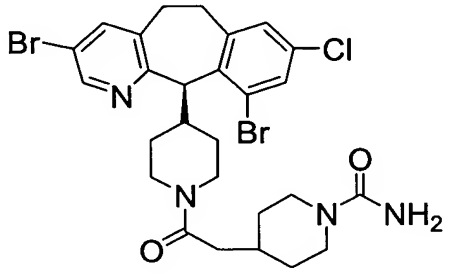
which comprises contacting a compound represented by the formula **VI**



VI

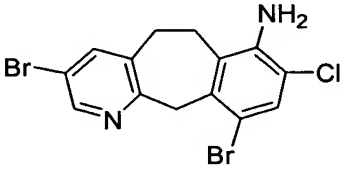
with an effective amount of sodium cyanate (NaOCN) , and an effective amount of sodium carbonate (Na_2CO_3) in a water miscible organic solvent comprising an effective amount of water to form the compound represented by the formula **I**.

18. The process of claim 17 which further comprises contacting the compound represented by the formula **I** produced in claim 17 with a solvent mixture comprising tetrahydrofuran, ethyl acetate and water for a time sufficient to produce the compound represented by the formula **I**, in a substantially chemically form.

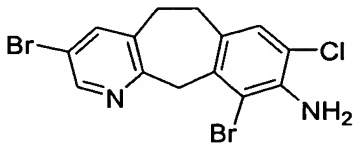


I

19. A process of preparing compounds represented by formulas **IVA** and **IVB**

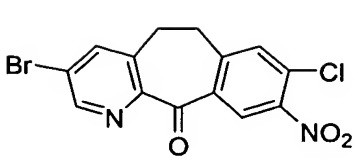


IVA

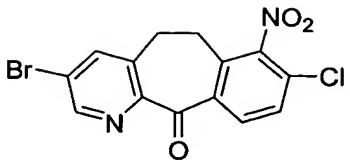


IVB

which comprises contacting compounds represented by formulas **IIA** and **IIB**



IIA



IIB

with at least about an equivalent amount of phosphorous acid in the presence of at least a catalytic amount of sodium iodide, hydrobromic acid, in water to form a reaction mixture and adding to the so-formed reaction mixture at least about an equivalent amount of hypophosphorous acid, and continuing the contacting for a time sufficient to form a reaction mixture comprising the compounds represented by formulas **IIIA** and **IIIB** ,and contacting the resulting reaction mixture with at least about an equivalent of bromine in the presence of an organic acid and a lower alkanol to form a compound represented by formula form a mixture comprising the compounds represented by formulas **IVA** and **IVB.**